Environmental Studies 101: Environmental Issues

Spring 2008

Class Sessions: Monday, Wednesday, Friday 12:40 – 1:40

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Office Hours: Monday and Wednesday (02:00 PM – 04:00 PM), Tuesday (11:00 AM – 1:00 PM) and by appointment or chance

Readings: Cunningham W.P., and Cunningham M., A., 2008: Principles of Environmental Science, Fourth Edition, McGraw Hill.

Course Objectives:

The objective of this course is to provide you with an understanding about the complexities of environmental issues. Special emphasis will be given to the human population, food production, soil erosion, environmental conservation, parks and nature reserves, air pollution and climate change, water resources. In addition to learning about basic concepts and developments we will explore various aspects of these issues by controversial discussions and analyzing opposing viewpoints.
A more general goal of this class is to contribute to your overall "liberal arts" education. Such an education gives you a broad background in the ideas and events that have in some way shaped our modern lives (for better or for worse). It increases your awareness of the diversity and complexity of human life and thought, it "expands your mind". For this reason, while a liberal arts education does not usually teach you how to do a particular sort of job, it does develop skills that are increasingly necessary in any job. These include the ability to quickly understand complicated readings on unfamiliar subjects, to express your thoughts clearly and persuasively, and to reason critically, creatively, and independently.

Student Requirements:

Your successful performance in this course depends on the following points:
A) Regular attendance of the lectures
B) Presentation of one subject in front of the class
C) Timely completion of the reading and writing assignments
D) Timely completion of the term paper
E) Active and well prepared participation at classroom discussions
F) Participation at the exams

A) Attendance Policy:

Discussions are an important part of the course and essential for the understanding and contemplation of the material. This is one of the reasons why it is essential that you will participate at the lectures. In addition to this I will do my best to make the course interesting and enjoyable for you. You will get 20 points (out of the 100) for your regular attendance and participation in the discussion. You can miss 2 lectures without providing any reason and without any consequences on the points. You can miss another 3 classes without consequences on the points if you provide a valid reason for your absence by e-mail no later than 2 days after the missed class. Not providing a valid reason for more than 2 missed classes or missing more than 5 classes altogether will lead to subtraction of 1 point per missed class.

B) Presentations:

You will present one of the subjects which are listed in the "Course Outline" below. Direct reading of a prepared statement will not be appropriate. The talk should be supported by an appealing visualization of the contents by PowerPoint. The time-frame for the presentation is 10 to 15 minutes. The outline of the presentation must be discussed with the instructor before the presentation is due.

The criteria for the grading of your performance will be the timing (minus one point for each minute beyond the time-frame), the content (that is the quality of the research or the provided information), the quality of the media, and the quality of your presentation. Your presentation will also be evaluated by the students according to the following checklist: 1. The presenter appeared to be an expert on the subject. 2. Contents, arguments and reasoning were convincing. 3. The presentation was well structured. 4. The presenter kept eye-contact to the audience, spoke clearly and did not cling to his notes or slides. 5. The slides were well designed. 6.The presenter adhered to the time limits.

C) Assignments:

a) Reading assignments: To gain an understanding of the various environmental issues and for the successful completion of the course you will be required to read several articles in preparation for the lectures. You will find the reading assignments listed in the "Course Outline" below. The material should be read and understood before the classroom session starts, because it will be the foundation for the discussion.

b) Writing assignments: The writing assignments must be handed in on maximum one computer-typed page. Late assignments will not be accepted and the six lowest scores will be dropped.

c) Term paper: You will write an essay (computer-typed, Arial 10 point, 1-inch margin, single-spaced, 3 - 4 pages) which elaborates on the subject of your presentation including all relevant references. The quality of the provided information and the cognizable research effort will be criteria for the grading of the essay.

Literature cited must have the appropriate number (minimum of 4), appropriate type (not only wikipedia and similar), and proper format (see below for examples).

Example of proper format for references IN TEXT:
Book or Journal Article: The wild boar has caused extensive damage to the wildlife reserve (Smith, 1993).

Examples of proper APA (American Psychological Association) format for LITERATURE CITED:
Journal Article: Adelgid, B. W. (1999). Killing fraser firs in the Smoky Mountains. *Journal of Exotics and Introduced Species*. *1* (15), 13-15.
Book: Boar, E. W. (1993). *Upsetting the balance of the Merritt Island Wildlife Refuge*. (3rd ed.). London: Island Press.
On-Line Sources: Mussel, Z., Loosestrife, P. (September 23, 1999). *Gaining a foothold in a new environment* [On-Line]. Available: http://www.eliminatingnativespecies.com/

Grades:

Your final grade is based on the following components:

- Lecture Exams: 20% of the total course grade
- Presentation: 15% of the total course grade
- Term paper: 15% of the total course grade
- Attendance: 20% of the total course grade
- Writing assignments: 30% of the total course grade

Excellence in performance and effort is expected. Mediocrity is not rewarded.

The total course grade will be assigned according to the following system:

A >= 93%	B >= 83%	C >= 73%	D >= 60%
AB >= 88%	BC >= 78%	CD >= 68%	F < 60%

Academic Integrity

(from the Dean of Students Office)

The University of Wisconsin Oshkosh is committed to a standard of academic integrity for all students. The system guidelines state: "Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors." (UWS 14.01, Wisconsin Administrative Code)

Students are subject to disciplinary action for academic misconduct, which is defined in UWS 14.03, Wisconsin Administrative Code. Students on the UW Oshkosh campus have been suspended from the University for academic misconduct.

Students are encouraged to review the procedures related to violations of academic honesty as outlined in Chapter UWS 14, Wisconsin Administrative Code. The system guidelines and local procedures are printed in the University of Wisconsin Oshkosh Student Discipline Code 2006-2007 and can be found on the Dean of Students website at www.uwosh.edu/dean/conduct.htm.

Schedule (tentative)

Day	Subject	Presentation	Assignment
Mon Feb 04	Introduction, Syllabus		

Day	Subject	Presentation	Assignment
Wed Feb 06	Introduction		
Fri Feb 08	Understanding our environment		2 – 4: Define the terms *environment* and *environmental science*.
Mon Feb 11	History of environmental conservation		13 – 15: Describe various approaches to environmental conservation.
Wed Feb 13	The state of the environment		15 – 18: List six environmental dilemmas we now face, and describe how each concerns us.
Fri Feb 15	Human dimensions of environmental science		18 – 20: Compare some indicators of quality of life between the richest and poorest nations.
Mon Feb 18	Sustainable development		21 – 21: Define the terms *sustainability* and *sustainable development*.
Wed Feb 20	Human populations		
Fri Feb 22	Human populations	1. Case study: Population growth	74 -77: At what point in history did the world population pass its first billion? What factors restricted population before that time, and what factors contributed to growth after that point?
Mon Feb 25	Human populations	2. Case study: Population growth	78: Define ecological footprint. Why is it helpful, but why might it also be inaccurate?
Wed Feb 27	Human populations	3. Case study: Population growth	79 – 84: Where will most population growth occur during the twenty-first century? What conditions contribute to rapid population growth in some countries?
Fri Feb 29	Human populations	4. Case study: Population growth	84 – 86: What factors increase or decrease peoples' desires to have babies?
Mon Mar 03	Human populations		86 – 91: Describe demographic transition and the conditions that lead to it.
Wed Mar 05	Exam #1		
Fri Mar 07	Biomes	5. Case study: Biomes and environmental problems in …	96 – 103: Describe nine major types of terrestrial biomes.
Mon Mar 10	Biomes	6. + 7. Case study: Biomes and environmental problems in …	103 – 108: Describe four kinds of wetlands and four reasons they are valuable.
Wed Mar 12	Biodiversity	8. + 9. Case study: Biomes and environmental problems in …	108 – 119: How do humans benefit from biodiversity? What are some of the main threats to biodiversity?
Fri Mar 14	Environmental conservation: Forests and rangelands	10. Case study: Logging	125 – 132: Describe causes for deforestation. Where does the highest deforestation rate in the world occur and why is there disagreement over the amount of deforestation in the tropics?
Mon Mar 17	Environmental conservation: Forests and rangelands	11. + 12. Case study: Desertification	132 – 138: Describe approaches for forest protection.
Wed Mar 19	Environmental conservation: Forests and rangelands	13. + 14. Case study: National park	138 – 140: Discuss the main environmental threat to U.S. rangelands and possible solutions.

Day	Subject	Presentation	Assignment
Fri Mar 21	Environmental conservation: Parks and nature reserves	15. - 18. Case study: National park	140 – 149: Describe some problems and threats from inside and outside national parks and preserves.
Mon Mar 24	Spring Break		
Wed Mar 26	Spring Break		
Fri Mar 28	Spring Break		
Mon Mar 31	Food and Nutrition	19. Case study: Famine	153 - 154: What is Brazil's cerrado and how is agriculture affecting it?
Wed Apr 02	Food and Nutrition	20. Case study: Famine	154 – 161: Describe various forms of malnourishment.
Fri Apr 04	Soils and soil erosion		
Mon Apr 07	Soils and soil erosion	22. Case study: Soil erosion	161 – 162: What is the composition of soil? Why are soil organisms so important?
Wed Apr 09	Soils and soil erosion	23. Case study: Soil erosion	163 – 166: Describe various forms of soil erosion.
Fri Apr 11	Soils and soil erosion	24. Case study: Soil erosion	166 – 172: Describe advantages and problems of GMOs.
Mon Apr 14	Soils and soil erosion	25. Case study: Soil erosion	172 – 175: Describe various forms of soil conservation in agriculture.
Wed Apr 16	Exam #2		
Fri Apr 18	Air: Climate and pollution		203 – 207: What is the greenhouse effect?
Mon Apr 21	Air: Climate and pollution		208 – 213: Describe some problems associated with global climate change.
Wed Apr 23	Air: Climate and pollution		213 – 217: Describe possible approaches to slow global warming.
Fri Apr 25	Air: Climate and pollution	26. Case study: Air pollution	
Mon Apr 28	Air: Climate and pollution	27. Case study: Air pollution	217 – 220: Define primary and secondary air pollutants and give examples.
Wed Apr 30	Air: Climate and pollution	28. Case study: Air pollution	222 – 223: What is the "ozone hole" and what are the reasons for it?
Fri May 02	Air: Climate and pollution		223 – 229: Describe air pollution legislation in the U.S.
Mon May 05	Water: Resources and pollution	29. Case study: Water pollution	233– 237: Describe the hydrologic cycle.
Wed May 07	Water: Resources and pollution	30. Case study: Water pollution	237 – 245: Describe some environmental and social costs associated with dam building.
Fri May 09	Water: Resources and pollution		245 – 251: Describe eutrophication.
Mon May 12	Water: Resources and pollution		251 – 260: Describe some approaches to improve water quality in the U.S.
Wed May 14	Exam 3		
Fri May 16	Final Session		